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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/551,916

10/05/2005

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EXAMINER

BERMAN, SUSAN W

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

04/03/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/551,916	Applicant(s) HUNT ET AL.	
	Examiner /Susan W. Berman/	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/05</u> . | 6) <input type="checkbox"/> Other: ____. |

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase “treating...with sufficient energy and for a sufficiently short time that a polymer foam having an open-cell structure is formed” in claim 1 is indefinite for the following reason. It is not clear what kinds of energy, conditions for exposure to the energy or time periods are suitable for successfully carrying out the instantly claimed method to obtain the intended product. The phrase “sufficiently short” is a relative term with no indication of what is “sufficient” or what is encompassed by “short” time.

Claim Rejections - 35 USC § 102/ 103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 6-8 and 10-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Zimmerman et al (4,296,210). Example 1 discloses preparing a solution of polyvinylalcohol and wetting agent and nucleic acid (a hydrophilic polymer solution), high shear stirring so that air is entrained in the solution forming bubbles therein, pouring the solution into a mold and heating the substrate for 4 hours at 75⁰C. The dried shaped particles produced have an open-cell structure (column 1, lines 44-62, and column 3, line 16). With respect to claim 13, the material taught by Aono would be expected to be suitable for an ink receiving layer since the components and methods correspond to those instantly disclosed for obtaining an ink receiving layer.

Claims 1, 2, 6-8 and 10-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Aono (5,128,313). Aono discloses preparation of an image receiving material comprising a porous dye diffusion-preventing layer, preferably gelatin. The method steps for obtaining the porous layer taught in column 9, lines 3-31 correspond to those set forth in instant claims 1, 2, 6-8 and 10-11. See Example 1, Solutions I and II, column 14, lines 35-54, for preparation of a dye accepting polymer emulsion. A thermal transfer image receiving layer including the porous layer is taught in column 9, lines 55-68. With respect to claims 13 and 14, the material on a support taught by Aono would be expected to be suitable for an ink receiving layer since the components and methods correspond to those instantly disclosed for obtaining an ink receiving layer.

Claims 1, 2, 6-8 and 10-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Morrison (5,382,285). Foamed materials having an open-cell structure are disclosed in column 6, lines 19-30. In Example 1, agar and gelatin are dissolved in hot water and the solution is mixed

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with a surface-active agent and p-xylene, emulsified in a high speed blended and poured into a mold. The gel is frozen and freeze dried. Freeze drying is cited in the instant specification as a method for “treating a foamed hydrophilic solution with sufficient energy and for a sufficiently short time that a polymer having an open-cell structure is formed” (see page 5, line 24, to page 6, line 9). With respect to claim 13, the material taught by Morrison would be expected to be suitable for an ink receiving layer since the components and methods correspond to those instantly disclosed for obtaining an ink receiving layer.

Claims 1, 3-8 and 10-13 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 02/26872. US 2004/039074 (Hahnle et al) is relied upon as a translation of the subject matter of WO '872. WO '872 teaches preparation of a hydrophilic open-celled foam by a method comprising dissolving a melamine-formaldehyde precondensate in water, mixing the solution with a curing agent, such as formic acid, an emulsifier and a blowing agent, such as pentane, with vigorous stirring. Comparative Example 1 discloses preparation of the foam of the invention which is then treated with a polyvinylamine in the Inventive Examples. Foaming by irradiation with microwave energy and heating at from 120-300⁰C for a time period from 1 to 180 minutes to remove volatiles to condition the foam are taught the Abstract and in Comparative Example 1. With respect to claims 4 and 5, WO '872 teaches heat treating the foamed polymer at a temperature from 120-to 300⁰C for a time period from 1 to 180 minutes in the method for forming an open-celled resilient foam, thus disclosing treating for the time periods set forth. With respect to claims 7-8, WO '972 teaches a combination of physical blowing agent with an acid and heats the solution while foaming by irradiation with microwave energy. With respect to

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claim 13, the material taught by WO '872 would be expected to be suitable for an ink receiving layer since the components and methods correspond to those instantly disclosed for obtaining an ink receiving layer.

Claims 1, 3-9 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by or, alternatively, under 35 U.S.C. 103(a) as being unpatentable over Boardman et al (4,808,637). Boardman et al teach reacting acrylic acid, an alkali metal salt of carbonic acid, aluminum acetate, sodium sulfate and water using microwave radiation as the heat source to obtain superabsorbent polyacrylates (column 2, lines 39-56). The alkali metal salt of carbonic acid can be sodium or potassium carbonate or bicarbonate, known for use as a blowing agent (column 3, lines 59-64). Boardman et al teach that subjecting the aqueous mixture to ultra high frequency radiation in the form of microwaves to achieve the reaction temperature provides that the reaction takes place substantially simultaneously throughout the reaction mixture (column 3, lines 1-5). Boardman et al teach the temperatures and time periods, i.e., at least 70⁰C and at least one minute and usually less than 2 minutes, for application of microwave radiation (column 3, lines 52-55, column 4, line 55, to column 5, line 11). Boardman et al describe the product of the disclosed process as a foam that frequently resembles a "pancake" or foamed sheet (column 3, lines 20-42). Boardman et al do not specifically mention whether the foam has an open-celled structure. The method taught by Boardman et al is considered to anticipate the instantly claimed method wherein the foamed products have an open-celled structure.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to /Susan W. Berman/ whose telephone number is 571 272 1067. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571 272 1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SB
3/30/2008

/Susan W Berman/
Primary Examiner
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